UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450

NOTICE OF ALLOWANCE AND FEE(S) DUE

52349 7590 02/07/2011 WENDEROTH, LIND & PONACK L.L.P. 1030 15th Street, N.W. Suite 400 East

Washington, DC 20005-1503

EXAMINER				
GARCIA	, SANTIAGO			
ART UNIT	PAPER NUMBER			
2611	•			
DATE MAILED: 02/07/2	011			

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/582,974	06/15/2006	Naotake Yamamoto	2006_0924A	9102	
TITLE OF INVENTION:	TRANSMITTING METI	IOD, RECEIVING METHOD, TRANSMITTING	DEVICE, RECEIVING DEVI	CE AND	

TRANSCEIVING DEVICE FOR AN ULTRA-WIDEBAND COMMUNICATION SYSTEM

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	05/09/2011

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FIEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This appropriate. All further indicated unless correcte maintenance fee notificat	form should be used for correspondence including d below or directed oth tions.	or tran	smitting the ISSU Patent, advance or in Block 1, by (a	ders and notification of a) specifying a new con	of m rresp	aintenance fees w ondence address;	ill be and/or	mailed to the current (b) indicating a sepa	correspond rate "FEE	dence address as ADDRESS" for
CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)				N Fo ba	Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.					
1030 15th Street Suite 400 East			L.P.	T.	han	Cert	tificate	of Mailing or Trans i) Transmittal is being ficient postage for first ISSUE FEE address I) 273-2885, on the d	nission	with the United
Washington, DC	20005-1503									(Depositor's name)
				L						(Signature)
				L						(Date)
APPLICATION NO.	N NO. FILING DATE			FIRST NAMED INVENTOR			ATTORNEY DOCKET NO.		CONFIR	MATION NO.
10/582,974	06/15/2006			Naotake Yamamoto				2006_0924A		9102
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nonprovisional	NO		\$1510	\$300	\$0 \$1810 05/09/201			5/09/2011		
EXAM	INER		ART UNIT	CLASS-SUBCLASS	П					
GARCIA, S.	ANTIAGO		2611	375-130000	_					
"Fee Address" indi PTO/SB/47; Rev 03-0 Number is required. 3. ASSIGNEE NAME A	ondence address (or Cha 3/122) attached. ication (or "Fee Address 2 or more recent) attach	nge of " Indicated. Use	Correspondence ation form of a Customer E PRINTED ON 1	data will appear on the T a substitute for filing a	ative ative ngle or ag ttori be p type type an a	3 registered patent ely, firm (having as a gent) and the name neys or agents. If a rinted.	memb es of u no nam	er a 2 o to e is 3		as been filed for
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Advance Order - #	o small entity discount p		ed)	o. Payment of Fee(s): (Pl A check is enclosed Payment by credit of The Director is here overpayment, to De	d. card	I. Form PTO-2038 authorized to chan	is atta	ched. required fee(s), any de	ficiency, o	
	s SMALL ENTITY state	ıs. See	37 CFR I.27.	b. Applicant is no le						
NOTE: The Issue Fee and interest as shown by the r	d Publication Fee (it requeecords of the United Sta	uired) v tes Pat	vill not be accepted ent and Trademark	Office.	in th	e applicant; a regi	stered a	ittorney or agent; or th	e assignee	or other party in
Authorized Signature						Date				
Typed or printed name						Registration N				
This collection of inform an application. Confident submitting the completed this form and/or suggesti Box 1450, Alexandria, V Alexandria, Virginia 223	ation is required by 37 C itality is governed by 35 I application form to the ons for reducing this but irginia 22313-1450. DC 13-1450.	FR 1.3 U.S.C. USPT rden, sl D NOT	11. The information 122 and 37 CFR O. Time will vary nould be sent to the SEND FEES OR O	on is required to obtain on 1.14. This collection is depending upon the incommendation off COMPLETED FORMS	esti divi ficer TO	etain a benefit by the mated to take 12 m dual case. Any co c, U.S. Patent and THIS ADDRESS	ne publ ninutes mment Traden	ic which is to file (and to complete, includin s on the amount of tir ark Office, U.S. Dep D TO: Commissioner	by the US g gathering ne you req artment of or Patents.	PTO to process) §, preparing, and uire to complete Commerce, P.O. P.O. Box 1450,

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PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.



UNITED STATES PATENT AND TRADEMARK OFFICE

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10/582,974	(6/15/2006	Naotake Yamamoto	2006_0924A	9102	
52349	349 7590 02/07/2011			EXAMINER		
WENDEROTI	H, LIND	& PONACK I	.L.P.	GARCIA, SANTIAGO		
1030 15th Stree	t, N.W.			ART UNIT	PAPER NUMBER	
Suite 400 East Washington, DC 20005-1503				2611 DATE MAILED: 02/07/201	1	

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 541 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 541 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

Application No.	Applicant(s)			
10/582,974	YAMAMOTO, NAOTAKE			
Examiner	Art Unit			
SANTIAGO GARCIA	2611			

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included
herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS
NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative
of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.
1. This communication is responsive to <u>01/13/11</u> .

- The allowed claim(s) is/are <u>7-11</u>.
- 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a)

 All b)

 Some* c)

 None of the:
 - 1.

 Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No.
 - Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- 5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) 🔲 including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - | \(\rightarrow\) hereto or 2) \(\rightarrow\) to Paper No./Mail Date _____.

 | \(\rightarrow\) including changes required by the attached Examiner's Amendment / Comment or in the Office action of

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

 DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1. Notice of References Cited (PTO-892)
- 2. Notice of Draftperson's Patent Drawing Review (PTO-948)
- Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date
- Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 5. Notice of Informal Patent Application
- Interview Summary (PTO-413), Paper No./Mail Date .
- 7. Examiner's Amendment/Comment
- 8. X Examiner's Statement of Reasons for Allowance
- 9. 🗌 Other ____

Application/Control Number: 10/582,974

Art Unit: 2611

DETAILED ACTION

Allowable Subject Matter

With regards to the after final amendment filled on 01/13/11 claims 7-11 are allowed.

REASONS FOR ALLOWANCE

The following is an examiner's statement of reasons for allowance: The applicants disclose an ultra-wide band communication system. In which an encoder operable to encode a k-bit information bit train to an n-bit encoded bit train at a coded rate of (k/n) ("k" is a natural number not less than 1, and "n" is a natural number not less than 2), on condition that m-piece pulses are transmitted per one bit of information bits ("m" is a natural number not less than 2) and the coded rate is (k/n). Also a transmitting unit is operable to generate n-piece repetitive pulse trains based on the n-bit encoded bit train encoded by then encoder, thereby transmitting sequentially the n-piece repetitive pulse trains to the communication path. The n-piece repetitive pulse trains are formed based on the perforce and effects of the bit in accordance with a state of the communication path. The system also adaptively adjust the number of repetitive pulse trains according the effect of the communication path. The combination of the mentioned features are not found in the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Art Unit: 2611

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to SANTIAGO GARCIA whose telephone number is (571)270-

5182. The examiner can normally be reached on MONDAY- FRIDAY 7:30 AM - 5:00 PM

EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Chieh Fan can be reached on (571) 272-3042. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SG/

/CHIEH M FAN/

Supervisory Patent Examiner, Art Unit 2611